

AMENDMENT & RESPONSE UNDER 37 C.F.R. § 1.116 - EXPEDITED PROCEDURE
Serial Number: 09/217,873
Filing Date: December 21, 1998
Title: DIGITAL YUV VIDEO EQUALIZATION AND GAMMA CORRECTION

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11. (Amended) A personal computer system comprising:

a processor;
a bus;
main memory;
a system controller;
a graphics controller;
a video source capable of providing a digital YUV video signal;
a video output capable of connecting to a video display device; and
a digital processor that computationally applies gamma correction to the digital YUV signal provided by the video source and provides a corrected signal to the video output.

REMARKS

Applicant has carefully reviewed and considered the Office Action mailed on October 10, 2001, and the references cited therewith.

Claims 1, 6, and 11 are amended, and no claims are cancelled, or added; as a result, claims 1-11 are now pending in this application. No new matter has been added.

§102 Rejection of the Claims

Claims 1-3, 5-8, and 10 were rejected under 35 USC § 102(e) as being anticipated by Aleksic et al. (U.S. 6,020,921).

To sustain an anticipation rejection, a single prior art reference must disclose each element of the claim under consideration. *In re Dillon* 919 F.2d 688, 16 USPQ 2d 1897, 1908 (Fed. Cir. 1990) (*en banc*), cert. denied, 500 U.S. 904 (1991). Applicant respectfully submits that the Office Action did not make out a *prima facie* case of anticipation, because the Aleksic reference does not disclose every element of the pending claims rejected here.

Aleksic discusses in col. 1, lines 37-39, and in column 2, lines 64-65, that a lookup table read-only memory (ROM) is required in a typical computer system to perform gamma correction of a YUV signal. The cited prior art gamma correction circuit shown as element 3 in Figure 2 of the Aleksic reference is such a gamma correction lookup table (see, e.g. col. 3, ln. 8-13) Aleksic

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claims improvement on the read-only memory gamma correction system by implementing three circuits to perform straight-line approximation of a gamma correction curve, and switching between these three straight-line approximation circuits based on a comparison circuit that makes a circuit selection determination based on the received input.

In contrast, the present invention utilizes and claims a digital processor employing a corrective algorithm that computationally applies gamma correction to a digital YUV signal. That is, the present invention does not utilize a lookup table or switch between straight-line approximations of a gamma correction curve as are discussed in Aleksic, but instead utilizes a digital processor to computationally apply a corrective algorithm to the digital YUV signal to perform gamma correction.

The independent claims 1, 6, and 11 have been amended to further clarify that application of an algorithm in a computer by definition includes computational calculation. See, for example, Webster's Third New International Dictionary, Unabridged, which defines an algorithm as "the art of calculating with any species of notation". It is now believed to be clearer that the pending claims recite that the gamma correction algorithm is applied by computational calculation, as is described in the specification and as was implied by the definition of the algorithm element of the previously unamended claims.

Because the Aleksic reference fails to disclose the element of the digital processor computationally employing a corrective algorithm, applicant believes that claims 1 and 6, and the claims that depend therefrom, are in condition for allowance. Reexamination and allowance of these claims is therefore respectfully requested.

§103 Rejection of the Claims

Claims 4, 9 and 11 were again rejected under 35 USC § 103(a) as being unpatentable over Aleksic et al. (U.S. 6,020,921). Applicant respectfully traverses the single reference rejection under 35 U.S.C. § 103 since not all of the recited elements of the claims are found in Aleksic.

Specifically, the digital processor employing a corrective algorithm to perform gamma correction is not present in Aleksic, and differs significantly in structure and function from anything that is found in Aleksic as was explained in greater detail with respect to the §102

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rejection discussed above. Further, as claims 4 and 9 depend from a base claim believed to be in condition for allowance as explained above, applicant believes that claims 4 and 9 are in condition for allowance as properly dependent upon an allowable base claim.

The Examiner has again indicated intent to take Official Notice of select missing elements, and so Applicant respectfully repeats his objection to the taking of Official Notice with a single reference obviousness rejection. Pursuant to M.P.E.P. § 2144.03, Applicant respectfully traverses the assertion of Official Notice and requests that the Examiner cite references in support of this position should it be maintained.

Because the claims here rejected have been shown to contain elements not present in the Aleksic reference, either on their own or through dependence on an allowable base claim, reexamination and allowance of these pending claims is respectfully requested.

Conclusion

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney (612-349-9581) to facilitate prosecution of this application. If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 50-0439.

Respectfully submitted,

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CERTIFICATE UNDER 37 CFR 1.6: The undersigned hereby certifies that this correspondence is being transmitted by facsimile (FAX NO. 703-872-9314), Commissioner of Patents, Washington, D.C. 20231, on this 10th day of January, 2002.

Name

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